

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application.

1. (Original) A system for communications, comprising:
a transport layer/network layer processing stack; and
an intermediate driver coupled to the transport layer/network layer processing stack via a first miniport and a second miniport,
wherein the first miniport supports teaming, and
wherein the second miniport is dedicated to a system that can offload traffic from the transport layer/network layer processing stack.
2. (Original) The system according to claim 1, further comprising:
a first network interface card coupled to the intermediate driver; and
a second network interface card coupled to the intermediate driver,
wherein the second network interface card supports the system that can offload traffic from the transport layer/network layer processing stack, and
wherein the first miniport, the first network interface card and the second network interface card support teaming
3. (Original) The system according to claim 2, wherein the first network interface card comprises a plurality of network interface cards.
4. (Original) The system according to claim 2, wherein the second network interface card comprises a remote-direct-memory-access-enabled (RDMA-enabled) network interface card.

5. (Original) The system according to claim 2, wherein the second network interface card is the only network interface card that supports traffic from the system that can offload traffic from the transport layer/network layer processing stack.

6. (Original) The system according to claim 1, wherein the transport layer/network layer processing stack comprises a transmission control protocol/internet protocol (TCP/IP) stack.

7. (Original) The system according to claim 1, wherein the first miniport comprises a virtual miniport instance.

8. (Original) The system according to claim 7, wherein the virtual miniport instance comprises a virtual miniport instance adapted for teamed traffic.

9. (Original) The system according to claim 1, wherein the second miniport comprises a virtual miniport instance.

10. (Original) The system according to claim 9, wherein the virtual miniport instance comprises an RDMA-enabled virtual miniport instance.

11. (Original) The system according to claim 1, wherein the system that can offload traffic from the transport layer/network layer processing stack comprises a Winsock Direct system.

12. (Original) The system according to claim 1, wherein the second miniport supports traffic that is processed by the transport layer/network layer processing stack.

13. (Original) The system according to claim 1, wherein the second miniport supports traffic that has not been offloaded by the system that can offload traffic from the transport layer/network layer processing stack.

14. (Original) The system according to the claim 1, wherein traffic that has been offloaded by the system that can offload traffic from the transport layer/network layer processing stack bypasses the transport layer/network layer processing stack and the intermediate driver.

15. (Original) The system according to claim 1, wherein the intermediate driver supports teaming.

16. (Original) The system according to claim 1, wherein the intermediate driver comprises a network driver interface specification (NDIS) intermediate driver.

17. (Original) The system according to claim 1, wherein the intermediate driver is aware of the system that can offload traffic from the transport protocol/network protocol processing stack.

18. (Original) The system according to claim 1, wherein teaming supports load balancing.

19. (Original) The system according to claim 1, wherein teaming supports fail over.

20. (Original) The system according to claim 1, wherein teaming supports virtual network capabilities.

21. (Previously Presented) A system for communications, comprising:

a first set of network interface cards comprising a second set and a third set, the second set comprising a network interface card that is capable of offloading one or more connections, the third set comprising one or more network interface cards that are not capable of providing an offload path; and

an intermediate driver coupled to the second set and to the third set, the intermediate driver being part of a host computer and supporting teaming over the second set and the third set, the host computer supporting iWARP traffic,

wherein fail over and the teaming are only performed by the host computer and/or one or more of the network interface cards.

22. (Previously Presented) The system according to claim 21, wherein the second set provides a kernel bypass path and wherein the third set does not provide a kernel bypass path.

23. (Previously Presented) The system according to claim 21,

wherein the second set is associated with a system that is capable of offloading one or more connections,

wherein the system that is capable of offloading one or more connections offloads a particular connection, and

wherein packets carried by the particular offloaded connection bypass the intermediate driver.

24. (Original) The system according to claim 21, wherein intermediate driver supports teaming over the first set.

25. (Original) The system according to claim 21, further comprising:

a host protocol processing stack coupled to the intermediate driver via a first virtual miniport instance and a second virtual miniport instance,

wherein the first virtual miniport instance is associated with traffic of the second set and the third set, and

wherein the second virtual miniport instance is associated solely with traffic of the third set.

26. (Previously Presented) A method for communicating, comprising:

(a) teaming a plurality of network interface cards using an intermediate driver of a host computer, wherein the teaming is only performed by the host computer and/or the plurality of network interface cards, wherein plurality of network interface cards support remote direct memory access (RDMA) traffic;

(b) adapting at least one network interface card of the plurality of network interface cards to provide an offload path; and

(c) adapting remaining network interface cards of the plurality of network interface cards not to provide an offload path.

27. (Previously Presented) The method according to claim 26, wherein (b) comprises solely associating a system that is capable of offloading one or more connections with a single network interface card of the plurality of network interface cards.

28. (Previously Presented) A method for communicating, comprising:

teaming a plurality of network interface cards of a host computer, the plurality of network interface cards not providing an offload path that bypasses a kernel of the host computer;

adding an additional network interface card to the host computer, the additional network interface card providing an offload path that bypasses the kernel of the host computer

teaming the plurality of network interface cards and the additional network interface card;
and
providing layer 2 load balancing over the plurality of network interface cards and the additional network interface card.

29. (Previously Presented) The method according to claim 28, further comprising:
handling packets of a particular connection only via the additional network interface card,
the particular connection being maintained by a system that is capable of offloading traffic from
the host protocol processing stack.

30. (Previously Presented) The method according to claim 28, wherein the additional
network interface card, which has been teamed with the plurality of network interface cards, is
adapted to provide an upload path that passes through the kernel of the host computer.

31. (Previously Presented) The method according to claim 28, further comprising:
processing packets of a particular connection via a host protocol processing stack, the
particular connection not being an offloaded connection although being maintained by a system
that is capable of offloading traffic from the host protocol stack.

32. (Original) The method according to claim 31, further comprising:
transmitting the processed packets only through the additional network interface card.